

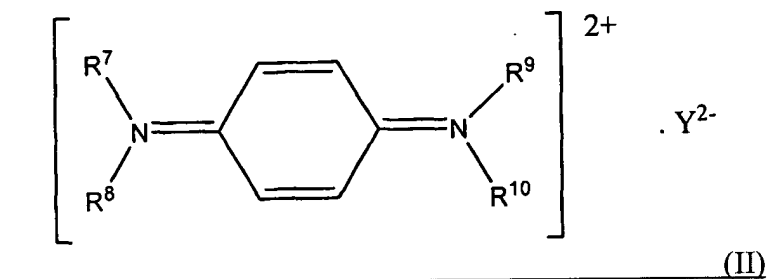
### AMENDMENTS TO THE CLAIMS

**This listing of claims will replace all prior versions and listings of claims in the application:**

#### **LISTING OF CLAIMS:**

1. (currently amended): A near-infrared absorption film having a base film and a near-infrared absorption layer formed on the base film, wherein

the near-infrared absorption layer contains a diimmonium compound is at least one compound represented by formulae (II):



where each of R<sup>7</sup> through R<sup>10</sup> is at least one selected from a group consisting of an alkyl group, an aryl group, a group having aromatic ring, a hydrogen atom, and a halogen atom, X<sup>-</sup> is a monovalent anion, and Y<sup>2-</sup> is a divalent anion, and

wherein the diimmonium compound ~~which~~ has an endothermic peak of 220°C or more, determined from differential scanning calorimetry (DSC measurement) with temperature rising rate of 10°C/minute.

2. (original): A near-infrared absorption film as claimed in claim 1, wherein the diimmonium compound has an endothermic peak from 225°C to 240°C, determined from the differential scanning calorimetry (DSC measurement) with temperature rising rate of 10°C/minute.

3. (canceled).

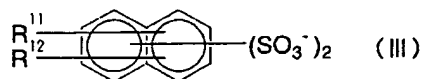
4. (currently amended): A near-infrared absorption film as claimed in claim ~~3~~ 1, wherein the monovalent anion represented by X ~~may be~~ is a halogen ion such as ~~I<sup>-</sup>, Cl<sup>-</sup>, Br<sup>-</sup>, or F<sup>-</sup>~~; an inorganic acid ion, such as ~~NO<sub>3</sub><sup>-</sup>, BF<sub>4</sub><sup>-</sup>, PF<sub>6</sub><sup>-</sup>, ClO<sub>4</sub><sup>-</sup>, or SbF<sub>6</sub><sup>-</sup>~~; an organic carboxylic acid ion such as ~~CH<sub>3</sub>COO<sup>-</sup>, CF<sub>3</sub>COO<sup>-</sup>, or a benzoic acid ion~~[[;]], an organic sulfonic acid ion such as ~~CH<sub>3</sub>SO<sub>3</sub><sup>-</sup>, CF<sub>3</sub>SO<sub>3</sub><sup>-</sup>, a benzenesulfonic acid ion, or a naphthalenesulfonic acid ion.~~

5. (currently amended): A near-infrared absorption film as claimed in claim ~~3~~ 1, wherein the divalent anion represented by Y<sup>2-</sup> is ~~preferably an aromatic disulfonic acid ion having two sulfonic acid groups and specific examples of the divalent anion are an ion of~~ naphthalenedisulfonic acid derivatives such as naphthalene 1,5-disulfonic acid, R acid, G acid, H acid, benzoyl H acid (a benzoyl group being attached to an amino group of H acid), p-chlorobenzoyl H acid, p-toluenesulfonyl H acid, chloro H acid (an amino group of H acid being replaced with a chlorine atom), chloroacetyl H acid, metanyl  $\gamma$  acid, 6-sulfonaphthyl  $\gamma$  acid, C acid, c acid, p-toluenesulfonyl R acid, naphthalene 1,6-disulfonic acid or 1-naphthol 4,8-disulfonic acid; carbonyl J acid, 4,4-diaminostilbene 2,2'-disulfonic acid, di J acid, naphthalic acid, naphthalene 2,3-dicarboxylic acid, diphenic acid, stilbene 4,4'-dicarboxylic acid, 6-sulfo-2-oxy-3-naphthoic acid, anthraquinone 1,8-disulfonic acid, 1,6-diaminoanthraquinone 2,7-

~~disulfonic acid, 2-(4-sulfophenyl)-6-aminobenzotriazole-5-sulfonic acid, 6-(3-methyl-5-pyrazolonyl)-naphthalene-1,3-disulfonic acid, 1-naphthol-6-(4-amino-3-sulfo)anilino-3-sulfonic acid.~~

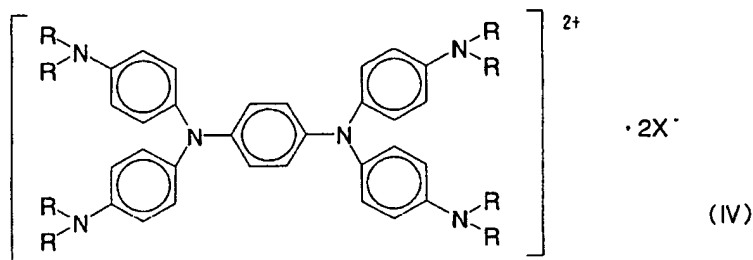
6. (previously presented): A near-infrared absorption film as claimed in claim 5, wherein the divalent anion represented by  $Y^{2-}$  is an naphthalenedisulfonic acid ion.

7. (withdrawn): A near-infrared absorption film as claimed in claim 6, wherein the naphthalenedisulfonic acid ion is represented by the following formula (III):



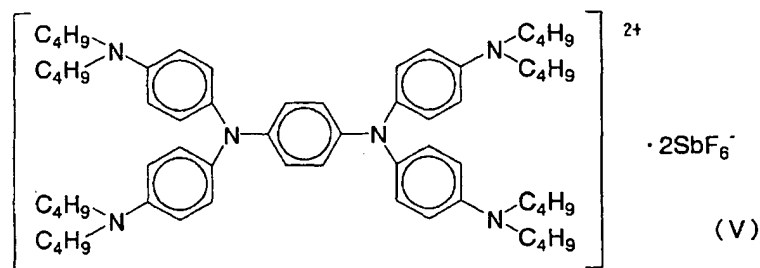
where each of  $R^{11}$  and  $R^{12}$  is at least one selected from a group consisting of a lower alkyl group, a hydroxyl group, an alkylamino group, an amino group,  $-NHCOR^{13}$ ,  $-NHSO_2R^{13}$ ,  $-OSO_2R^{13}$  [(O)] where  $R^{13}$  is at least one selected from a group consisting of aryl groups and alkyl groups,  $R^{13}$  may have substituent(s)), an acetyl group, a hydrogen atom, and a halogen atom.

8. (withdrawn): A near-infrared absorption film as claimed in claim 1 or 2, wherein the diimmonium compound is represented by the following formula (IV):



where R is an alkyl group having 1 to 8 carbon atoms, preferably a n-butyl group, and X<sup>-</sup> as the monovalent anion is preferably BF<sub>4</sub><sup>-</sup>, PF<sub>6</sub><sup>-</sup>, ClO<sub>4</sub><sup>-</sup>, or SbF<sub>6</sub><sup>-</sup>.

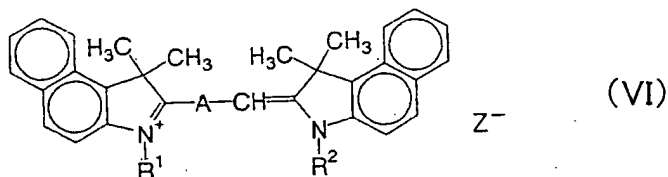
9. (withdrawn): A near-infrared absorption film as claimed in claim 8, wherein the diimmonium compound is represented by the following formula (V):



10. (previously presented): A near-infrared absorption film as claimed in claim 1, wherein the near-infrared absorption layer contains 0.1% to 10% by weight of diimmonium compound.

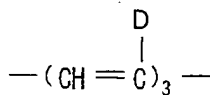
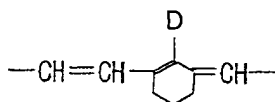
11. (withdrawn): A near-infrared absorption film as claimed in claim 1, wherein the near-infrared absorption layer contains at least one selected from a group consisting of a cyanine compound, a phthalocyanine compound, a naphthalocyanine compound, and a nickel complex compound.

12. (withdrawn): A near-infrared absorption film as claimed in claim 11, wherein the cyanine compound is a compound represented by the following formula (VI):

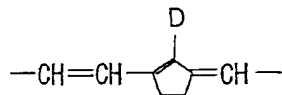


where A is a divalent conjugating group containing an ethylene group, each of  $R^1$  and  $R^2$  is a monovalent group having carbon atom(s), and  $Z^-$  is a monovalent anion.

13. (withdrawn): A near-infrared absorption film as claimed in claim 12, wherein A is:



or



where D is one of an alkyl group, diphenyl amino group, a halogen atom, and hydrogen atom.

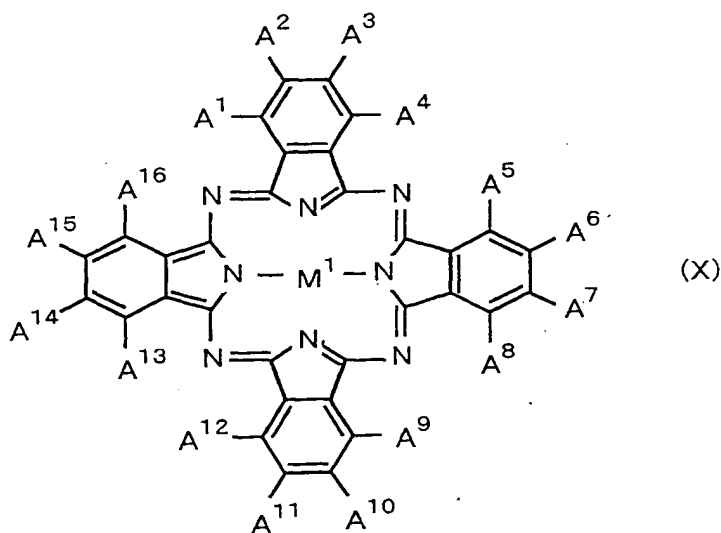
14. (withdrawn): A near-infrared absorption film as claimed in claim 12 or 13, wherein each of  $R^1$  and  $R^2$  is an alkyl group, an aryl group, an alkoxy group, an alkoxy carbonyl group, a sulfonyl alkyl group, or a cyano group.

15. (withdrawn): A near-infrared absorption film as claimed in claim 12 or 13, wherein  $Z^-$  is  $\text{I}^-$ ,  $\text{Br}^-$ ,  $\text{ClO}_4^-$ , or  $\text{BF}_4^-$ ,  $\text{PF}_6^-$ ,  $\text{SbF}_6^-$ ,  $\text{CH}_3\text{SO}_4^-$ ,  $\text{NO}_3^-$ , or  $\text{CH}_3\text{-CH}_6\text{H}_4\text{-SO}_3^-$ .

16. (withdrawn): A near-infrared absorption film as claimed in claim 12, wherein the near-infrared absorption layer contains 50 parts by weight or less of the cyanine compound relative to 100 parts by weight of said diimmonium compound.

17. (withdrawn): A near-infrared absorption film as claimed in claim 12, wherein the near-infrared absorption layer contains from 0.1 to 50 parts by weight of the cyanine compound relative to 100 parts by weight of said diimmonium compound.

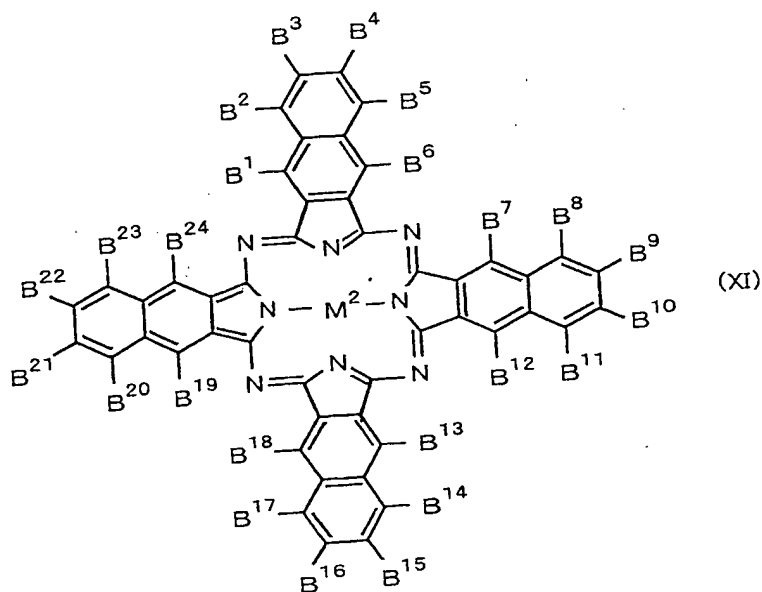
18. (withdrawn): A near-infrared absorption film as claimed in claim 11, wherein the phthalocyanine compound is represented by the following formula (X):



where  $A^1$  through  $A^{16}$  each represent independently either one of the followings, i.e. a hydrogen atom, a halogen atom, a hydroxyl group, an amino group, a hydroxysulfonyl group, an aminosulfonyl group, or a substituent having from 1 to 20 carbon atoms, the substituent having from 1 to 20 carbon atoms may contain either one of the followings, i.e. a nitrogen atom, a sulfur atom, an oxygen atom, and a halogen atom, and adjacent two substituents may be bonded to each

other via a conjugating group, wherein each of at least four of  $A^1$  through  $A^{16}$  is at least either one of a substituent via sulfur atom and a substituent via nitrogen atom, and  $M^1$  is either one of the followings, i.e. two hydrogen atoms, a divalent metallic atom, a trivalent or quadrivalent substituted metallic atom, and an oxy metal.

19. (withdrawn): A near-infrared absorption film as claimed in claim 11, wherein the naphthalocyanine compound is represented by the following formula (XI):



where  $B^1$  through  $B^{24}$  each represent independently either one of the followings, i.e. a hydrogen atom, a halogen atom, a hydroxyl group, an amino group, a hydroxysulfonyl group, an aminosulfonyl group, or a substituent having from 1 to 20 carbon atoms, the substituent having from 1 to 20 carbon atoms may contain a nitrogen atom, a sulfur atom, an oxygen atom, and a halogen atom, adjacent two substituents may be bonded to each other via a conjugating group, wherein each of at least four of  $B^1$  through  $B^{24}$  is at least either one of a substituent via oxygen

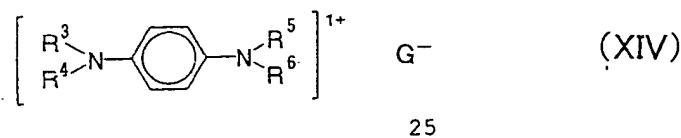
atom, a substituent via sulfur atom, a substituent via nitrogen atom, and  $M^2$  is either one of the followings, i.e. two hydrogen atoms, a divalent metallic atom, a trivalent or quadrivalent substituted metallic atom, and an oxy metal.

20. (withdrawn): A near-infrared absorption as claimed in claim 1, wherein the near-infrared absorption layer contains a quencher compound.

21. (withdrawn): A near-infrared absorption as claimed in claim 20, wherein the quencher compound is a metallic compound represented by the following formula (XII) or (XIII), or an aminium compound represented by the following formula (XIV):



in the formulae (XII) and (XIII), M is Ni, Cu, Co, Pt, or Pd;

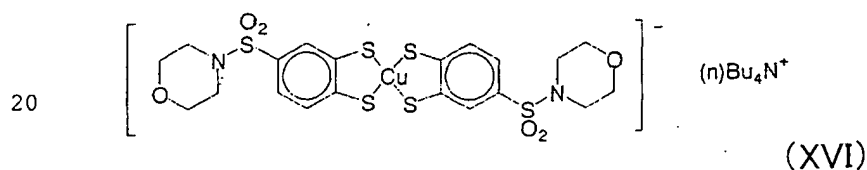
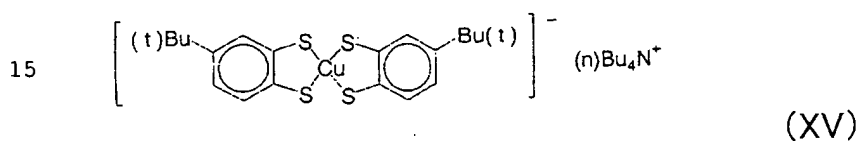


in the formula (XIV), each of  $R^3$  through  $R^6$  is at least one selected from a group consisting of an alkyl group, an aryl group, a group having aromatic ring, a hydrogen atom, and a halogen atom.  $G^-$  is  $I^-$ ,  $Br^-$ ,  $ClO_4^-$ , or  $BF_4^-$ ,  $PF_6^-$ ,  $SbF_6^-$ ,  $CH_3SO_4^-$ ,  $NO_3^-$ , or  $CH_3-C_6H_4-SO_3^-$ .

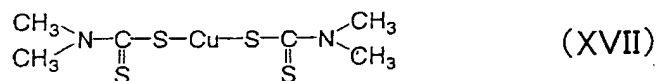
22. (withdrawn): A near-infrared absorption film as claimed in claim 21, wherein the metallic compound represented by the formula (XII) is a 1,2-benzenethiol copper complex compound or a 1,2-benzenethiol nickel complex compound.



23. (withdrawn): A near-infrared absorption film as claimed in claim 22, wherein 1,2-benzenethiol copper complex compound is represented by formula (XV) or (XVI):



24. (withdrawn): A near-infrared absorption film as claimed in claim 21, wherein the metallic compound represented by the formula (XIII) is a complex represented by the following formula (XVII):



25. (withdrawn): A near-infrared absorption film as claimed in any one of claims 20 through 24, wherein the near-infrared absorption layer contains 100 parts by weight or less of the quencher compound relative to 100 parts by weight of the diimmonium compound.

26. (previously presented): A near-infrared absorption film as claimed in claim 1, wherein the near-infrared absorption layer contains a binder resin.

27. (original): A near-infrared absorption film as claimed in claim 25, wherein the binder resin is polyester resin, acrylic resin, methacrylic resin, urethane resin, silicone resin, phenol resin, or a homopolymer or copolymer of (meth) acrylic acid ester.

28. (currently amended): A near-infrared absorption film as claimed claim 1, wherein the near-infrared absorption layer further contains a near-infrared absorbent (~~e.g. near infrared absorbents of azo series, polymethine series, diphenylmethane series, triphenylmethane series, and quinine series~~), an antioxidant other than the quencher compound (~~e.g. antioxidants of phenol series, amine series, hindered bisphenol series, hindered amine series, sulfur series, phosphoric acid series, phosphorous acid series, and metallic complex series~~), an UV absorbent, and a colorant, a pigment, and a dye for improving the appearance of the film.

29. (previously presented): A near-infrared absorption film as claimed in claim 1, wherein the thickness of near-infrared absorption layer is from 0.5  $\mu\text{m}$  to 50 $\mu\text{m}$ .

30. (previously presented): A near-infrared absorption film as claimed in claim 1, wherein the base film -is made of a synthetic resin.

31. (currently amended): A near-infrared absorption film as claimed in claim 30, wherein the synthetic resin is polyolefine polyolefin resin ~~such as polyethylene and polypropylene, polyester resin, acrylic resins, cellulose resin, polyvinylchloride resin, polycarbonate resin, phenol resin, or urethane resin.~~

32. (previously presented): A near-infra red absorption film as claimed in claim 1, wherein the base film has a thickness from 50  $\mu\text{m}$  to 200  $\mu\text{m}$ .

33. (new): A near-infrared absorption film as claimed in claim 1, wherein the divalent anion represented by  $\text{Y}^{2-}$  is naphthalene-1,5-disulfonic acid, R acid, G acid, H acid, benzoyl H acid (a benzoyl group being attached to an amino group of H acid), p-chlorobenzoyl H acid, p-toluenesulfonyl H acid, chloro H acid (an amino group of H acid being replaced with a chlorine

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Supplemental Amendment under 37 C.F.R. § 1.111

atom), chloroacetyl H acid, metanyl  $\gamma$  acid, 6-sulfonaphthyl- $\gamma$  acid, C acid,  $\epsilon$  acid, p-toluenesulfonyl R acid, naphthalene-1,6-disulfonic acid or 1-naphthol-4,8-disulfonic acid; carbonyl J acid, 4,4-diaminostilbene-2,2'-disulfonic acid, di-J acid, naphthalic acid, naphthalene-2,3-dicarboxylic acid, diphenic acid, stilbene-4,4'-dicarboxylic acid, 6-sulfo-2-oxy-3-naphthoic acid, anthraquinone-1,8-disulfonic acid, 1,6-diaminoanthraquinone-2,7-disulfonic acid, 2-(4-sulfophenyl)-6-aminobenzotriazole-5-sulfonic acid, 6-(3-methyl-5-pyrazolonyl)-naphthalene-1,3-disulfonic acid, 1-naphthol-6-(4-amino-3-sulfo)anilino-3-sulfonic acid